

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An optical distribution network system comprising:

an OLT (optical line termination) device;

a plurality of ONUs (optical network units)[[;]],

wherein each of the plurality of ONUs are connected to the OLT via both first and second optical networks; and

~~a first optical network and a second optical network, one of which connects said OLT device with said plurality of ONUs; and~~

a bandwidth controller configured to apportion said plurality of ONUs between said first optical network and said second optical network, to assign a predetermined transmission bandwidth to each of said plurality of ONUs, and to accept a bandwidth change of the predetermined transmission bandwidth.

Claim 2 (Previously Presented): The optical distribution network system according to claim 1, wherein when a failure occurs in one of said first optical network and said second optical network, said bandwidth controller is configured to assign all transmission bandwidths of said ONUs to the other optical network.

Claim 3 (Previously Presented): The optical distribution network system according to claim 1, wherein when a failure occurs in a working side ONU of said plurality of ONUs, said bandwidth controller is configured to switch the working side ONU to a standby side, and to switch a standby side ONU to the working side.

Claim 4 (Previously Presented): The optical distribution network system according to claim 3, wherein when apportionment balance is lost of said plurality of ONUs between said first optical network and said second optical network, said bandwidth controller is configured to carry out apportionment of said plurality of ONUs between said first optical network and said second optical network, again.

Claim 5 (Previously Presented): The optical distribution network system according to claim 1, wherein said bandwidth controller is configured to assign a minimum cell rate to each of said plurality of ONUs.

Claim 6 (Previously Presented): The optical distribution network system according to claim 5, wherein said bandwidth controller is configured to apportion each of said plurality of ONUs to one of said first optical network and said second optical network such that a sum total of minimum cell rates of said ONUs in said first optical network becomes nearly equal to a sum total of minimum cell rates of said ONUs in said second optical network.

Claim 7 (Previously Presented): The optical distribution network system according to claim 5, wherein said bandwidth controller is configured to apportion each of said plurality of ONUs to one of said first optical network and said second optical network such that a sum total of peak cell rates of said ONUs in said first optical network becomes nearly equal to a sum total of peak cell rates of said ONUs in said second optical network.

Claim 8 (Previously Presented): The optical distribution network system according to claim 5, wherein said bandwidth controller is configured to apportion each of said plurality of ONUs to one of said first optical network and said second optical network such that a sum

total of differences between peak cell rates and minimum cell rates of said ONUs in said first optical network becomes nearly equal to a sum total of differences between peak cell rates and minimum cell rates of said ONUs in said second optical network.

Claim 9 (Previously Presented): The optical distribution network system according to claim 5, wherein said bandwidth controller is configured to apportion each of said plurality of ONUs to one of said first optical network and said second optical network such that a sum total of established bandwidths of said ONUs in said first optical network becomes nearly equal to a sum total of established bandwidths of said ONUs in said second optical network.

Claim 10 (Currently Amended): An optical distribution network system comprising:  
an OLT (optical line termination) device;  
a plurality of ONUs (optical network units)[[;]],  
wherein each of the plurality of ONUs are connected to the OLT via both first and second optical networks; and  
~~a first optical network and a second optical network, one of which connects said OLT device with said plurality of ONUs; and~~

a bandwidth controller configured to apportion a plurality of paths contained in said plurality of ONUs between said first optical network and said second optical network, to assign a predetermined transmission bandwidth to each of said path, and to accept a bandwidth change of the predetermined transmission bandwidth.

Claim 11 (Previously Presented): The optical distribution network system according to claim 10, wherein when a failure occurs in one of said first optical network and said

second optical network, said bandwidth controller is configured to assign all the paths contained in said plurality of ONUs to the other optical network.

Claim 12 (Previously Presented): The optical distribution network system according to claim 10, wherein when a failure occurs in a working side path of said plurality of paths, said bandwidth controller is configured to switch the working side path to a standby side, and to switch a standby side path to the working side.

Claim 13 (Previously Presented): The optical distribution network system according to claim 12, wherein when apportionment balance is lost of said plurality of paths between said first optical network and said second optical network, said bandwidth controller is configured to carry out apportionment of said plurality of paths between said first optical network and said second optical network, again.

Claim 14 (Previously Presented): The optical distribution network system according to claim 10, wherein said bandwidth controller is configured to assign a minimum cell rate to each of said plurality of paths.

Claim 15 (Previously Presented): The optical distribution network system according to claim 14, wherein said bandwidth controller is configured to apportion each of said plurality of paths to one of said first optical network and said second optical network such that a sum total of minimum cell rates of said paths in said first optical network becomes nearly equal to a sum total of minimum cell rates of said paths in said second optical network.

Claim 16 (Previously Presented): The optical distribution network system according to claim 14, wherein said bandwidth controller is configured to apportion each of said plurality of ONUs to one of said first optical network and said second optical network such that a sum total of peak cell rates of said paths in said first optical network becomes nearly equal to a sum total of peak cell rates of said paths in said second optical network.

Claim 17 (Previously Presented): The optical distribution network system according to claim 14, wherein said bandwidth controller is configured to apportion each of said plurality of paths to one of said first optical network and said second optical network such that a sum total of differences between peak cell rates and minimum cell rates of said paths in said first optical network becomes nearly equal to a sum total of differences between peak cell rates and minimum cell rates of said paths in said second optical network.

Claim 18 (Previously Presented): The optical distribution network system according to claim 14, wherein said bandwidth controller is configured to apportion each of said plurality of ONUs to one of said first optical network and said second optical network such that a sum total of established bandwidths of said paths in said first optical network becomes nearly equal to a sum total of established bandwidths of said paths in said second optical network.

Claim 19 (Currently Amended): A method for assigning bandwidth in an optical distribution network comprising:

establishing a connection between a plurality of ONUs (optical network units) and an OLT (optical line termination) device via both first and second optical networks;

apportioning [[a]] said plurality of optical network units between [[a]] said first optical network and [[a]] said second optical network;

assigning a predetermined transmission bandwidth to each of said plurality of optical network units; and

accepting a bandwidth change of the predetermined bandwidth.